

IN THE CLAIMS:

Please cancel Claims 2, 19 and 20 without prejudice or disclaimer of subject matter, and amend the claims as shown below. The claims, as pending in the subject application, read as follows:

1. (Currently amended) A pattern identification method of identifying a pattern of input data by hierarchically extracting features of the input data, ~~characterized by~~ comprising:

a first feature extraction step of extracting a feature of a first layer;

an analysis step of analyzing a distribution of a feature extraction result in the first feature extraction step;

a calculation step of calculating likelihoods of a plurality of categories for features of a second layer higher than the first layer on the basis of the distribution analyzed in the analysis step;

a determination step of determining a category, from among the plurality of categories, whose calculated likelihood is not less than a predetermined value; and

a second feature extraction step of extracting a feature which belongs to the determined category from the ~~[[of a]] second layer higher than the first layer on the basis of the distribution analyzed in the analysis step.~~

2. (Canceled)

3. (Currently Amended) The method according to claim 1, ~~characterized in~~
~~that~~ wherein in the first or second feature extraction step, a feature obtained by performing
a predetermined transformation to a predetermined feature is extracted.

4. (Currently Amended) The method according to claim 1, ~~characterized by~~
further comprising a re-extraction step of re-extracting a feature of a lower layer on the
basis of a feature extraction result of a higher layer in the second feature extraction step.

5. (Currently Amended) The method according to claim 1, ~~characterized in~~
~~that~~ wherein in the analysis step, a distribution of each of the plurality of feature extraction
results is analyzed, and a relative relationship between analytical results is analyzed.

6. (Currently Amended) The method according to claim 1, ~~characterized in~~
~~that~~ wherein in the analysis step, a distribution within a specific range of at least one of the
feature extraction results is analyzed.

7. (Currently Amended) The method according to claim 1, ~~characterized in~~
~~that~~ wherein in the analysis step, whether the feature is extracted or not extracted within a
predetermined range in a distribution of at least one of the feature extraction results is
analyzed.

8. (Currently Amended) The method according to claim 1, ~~characterized in that~~ wherein in the analysis step, a barycenter of a distribution of at least one of the feature extraction results is analyzed.

9. (Currently Amended) The method according to claim 1, ~~characterized in that~~ wherein in the analysis step, a size of a range within which the feature is extracted or not extracted in a distribution of at least one of the feature extraction results is analyzed.

10. (Currently Amended) The method according to claim 1, ~~characterized in that~~ wherein in the analysis step, a likelihood of at least one of the feature extraction results or a total of feature detection levels is analyzed.

11. (Currently Amended) The method according to claim 1, ~~characterized in that~~ wherein the pattern identification is performed on ~~[[the]]~~ a presence/absence of a face image contained in the input data.

12. (Currently Amended) The method according to claim 1, ~~characterized in that~~ wherein the pattern identification is performed on a position of a face image contained in the input data.

13. (Currently amended) A pattern identification apparatus for identifying a pattern of input data by hierarchically extracting features of the input data, ~~characterized by~~ comprising:

first feature extracting means for extracting a feature of a first layer;
analyzing means for analyzing a distribution of a feature extraction result
obtained by said first feature extracting means;
calculating means for calculating likelihoods of a plurality of categories for
features of a second layer higher than the first layer on the basis of the distribution analyzed
by said analyzing means;
determining means for determining a category, from among the plurality of
categories, whose calculated likelihood is not less than a predetermined value; and
second feature extracting means for extracting a feature which belongs to
the predetermined category from the [[of a]] second layer higher than the first layer on the
basis of the distribution analyzed by said analyzing means.

14. (Currently amended) A computer-readable storage medium on which is
stored a pattern identification program for allowing a computer to identify a pattern of input
data by hierarchically extracting features of the input data, characterized by comprising:

a first feature extraction step of extracting a feature of a first layer;
an analysis step of analyzing a distribution of a feature extraction result in
the first feature extraction step;
a calculation step of calculating likelihoods of a plurality of categories for
features of a second layer higher than the first layer on the basis of the distribution analyzed
in the analysis step;
a determination step of determining a category, from among the plurality of
categories, whose calculated likelihood is not less than a predetermined value;

and

a second feature extraction step of extracting a feature which belongs to the determined category from the ~~[[of a]] second layer higher than the first layer on the basis of the distribution analyzed in the analysis step.~~

15. (Currently amended) ~~A pattern identification~~ The method according to claim 1, wherein, in the ~~of identifying a pattern of input data by hierarchically extracting features of the input data, characterized by comprising:~~

~~a first feature extraction step of extracting a feature of a first layer, and~~

~~[[a]] second feature extraction step, the of extracting a feature of the~~ [[a]] second layer is extracted higher than the first layer by one ~~on the basis of a feature extraction result in the first layer and a feature extraction result in a layer other than the first layer.~~

16. (Currently Amended) The method according to claim 15, ~~characterized in that~~ wherein the layer other than the first layer is a layer lower than the first layer.

17. (Currently Amended) The method according to claim 15, ~~characterized in that~~ wherein the layer other than the first layer is the second layer.

18. (Currently Amended) The method according to claim 15, ~~characterized by further comprising an integrating step of integrating feature extraction results by a plurality of feature extractors in the same layer.~~

19. and 20. (Canceled)